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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,190	07/15/2003	Gustaaf Persoons	FMCNV121470	2343

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EXAMINER
THAKUR, VIREN A

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/621,190	PERSOONS, GUSTAAF	
	Examiner	Art Unit	
	Viren Thakur	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-11 and 13-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-11 and 13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 13, 2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1-2, 4-5, 7-11, 13 and 15-20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for preventing moisture from entering into the exposed edge of paperboard, while preventing the closed container from bursting, does not reasonably provide enablement for all predetermined control pressure and temperature values for the vessel which would have prevented the ingress of moisture**

into paperboard. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

4. To "predetermine" the temperature and pressure without knowing the basis for how or from what the control temperature and pressure are determined would not enable one skilled in the art to make or use the invention. The breadth of the claims, when considered as a whole, would not have enabled one skilled in the art to use the entire scope of the claimed invention without undue experimentation: a "predetermined" control temperature and pressure can be any pressure and temperature within the prior art to control the vessel, provided that they are predetermined. However, this would not have enabled one skilled in the art to prevent moisture from entering into the paperboard because a predetermined control pressure which is less than "a theoretical total pressure" would not have always resulted in the pressure within the container being greater that the pressure of the vessel such that moisture absorption is prevented. The specification provides limited guidance as to from where the predetermined control values for the pressure and temperature are determined, for achieving the prevention of moisture absorbing into the paperboard. Applicant's specification calculates a theoretical vessel pressure which is used to determine the control pressure in the vessel; however this alone would not have enabled one skilled in the art to achieve the prevention of moisture from entering into the paperboard,

since the pressure in the vessel must be lower than the pressure within the container in order to achieve applicant's invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-2, 4-5, 7-11, 13 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Instant claims 1, 10 and 16 recite the limitation "a theoretical total pressure related to temperature." The claims are unclear as to how the pressure is related to temperature. Additionally, it is unclear as to what temperature is being referred to in the above limitation of "related to temperature."

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-2, 4-5, 7-11, 13 and 15-20 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Dodrill (US 5283033) in view of Lagerstedt (US 6177048 B1).

The limitations of Dodrill and Lagerstedt, reasons for rejection and response to arguments are taken as cited in the prior Office Action, mailed June 13, 2007.

10. Regarding the new limitations to instant claim 1, wherein the control temperature and control pressure are within the vessel and outside of the closed container, Dodrill teaches using measurements and calculations of the pressure within the deformable package to determine the pressure (Column 5, Line 68 to Column 6, Line 4), temperature (Column 6, line 66 to Column 7, Line 2; Column 11, Line 60 to Column 12, line 22; Column 16, Lines 27-69) to be used in the processing tank. Regarding the control pressure being less than a theoretical total pressure related to temperature, it is asserted that Dodrill calculates a theoretical pressure related to temperature as discussed on column 5, line 68 to

column 6, line 4. As can be seen in figure 2, the line denoted by item 14 is shown during the come-down phase as having less pressure than the deformable package (item 16).

11. Dodrill also teaches allowing the package pressure to exceed the vessel pressure so as to inflate the package and prevent it from collapsing at a vulnerable point, such as a corner (Column 6, Lines 45-49). This teaches a vessel pressure less than the calculated theoretical pressure which would help to prevent moisture from entering into the exposed edge of paperboard while preventing the container from bursting.

12. Regarding instant claims 10 and 16, the temperature of the vessel and outside of the container is reduced during cooling and the pressure within the vessel and outside of the container is also actively controlled, for the reasons discussed in the prior Office Action, mailed June 13, 2007.

13. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dodrill (US 5283033) and Lagerstedt (US 6177047), as applied to claims 1-2, 4-5, 7-11, 13 and 15-20, above, and in further view of McHenry et al. (US 4667454).

Dodrill and Lagerstedt are taken as applied above with respect to the new limitations in the claims. The reference and reasons for rejection are also taken as cited in the prior Office Action, mailed June 13, 2007.

Response to Arguments

14. As a result of the amendment the rejection of claims 1-5 and 7-9 under 35 U.S.C. 112, second paragraph has been withdrawn.

15. Applicant's argument and the affidavit of Mr. Gustaaf Persoons, with respect to the rejection of claims 1-5, 7-11 and 13-20 under 35 U.S.C. 112, first paragraph are persuasive. The rejection has been withdrawn.

16. Regarding Dodrill, applicant states that one of ordinary skill in the art would find no apparent reason to control the pressure within the vessel in the manner of amended claim 1, since such a person would find no apparent reason to modify the pressure schedule of Dodrill so that each of the control pressure values (1) corresponds to a control temperature value within the vessel and outside of the closed container rather than a measured temperature value within the container, and (2) is less than a theoretical total pressure related to temperature based on the corresponding control temperature value within the vessel and outside of the closed container.

17. This argument has been considered but is not deemed persuasive. The examiner directs applicant to column 5, line 68 to column 6, line 4, wherein the pressure inside the processing tank is maintained at the sum of the partial pressures of the air and saturated water vapor inside the package. On column 4,

lines 50-56, Dodrill teaches as an object of the invention to provide an improved method for controlling the pressure inside a processing tank. Dodrill further teaches that prior to mass producing the product, that the sterilization of each product should be experimentally verified (Column 2, lines 62-64). Thus, Dodrill teaches one having ordinary skill in the art to control the pressure and temperature within the processing tank. Although the pressure and temperature of the deformable packages are used as a gauge to prevent collapse or bursting of the package, these measurements still determine the temperature and pressure required for the processing tank such that the pressure outside the package but inside the vessel does not permanently deform the package. This is further exemplified on column 5, line 54, where Dodrill teaches achieving a predetermined sterilization temperature. In order to get to this temperature, the processing vessel would have to have been controlled in order to reach the desired temperature within the package. In order to reach any specified condition within the package, the pressure and temperature within the processing tank require control. Furthermore, as shown in figure 2, item 14 and 16, and on column 2, lines 62-64, Dodrill teaches performing experimental verification of the sterilization process so as to achieve the optimal desired results when mass producing the sterilized product. Nevertheless, teaches a predetermined schedule for temperature and pressure within the processing tank so as to prevent permanent damage to the package. It is further noted that the pressure within the deformable package would intrinsically be controlled by the pressure

and temperature within the processing vessel. Any changes in pressure and temperature imparted to the deformable package would have been a result of controlling the pressure in the processing tank.

18. Regarding instant claims 10 and 16, Dodrill, for the reasons discussed above, still controls the pressure within the vessel and outside of the container and reducing *a temperature* within the vessel and outside of the container.

19. Dodrill also teaches that proper control is critical to maintaining the shape and integrity of deformable packages, especially during the come-up and come-down phases (Column 2, Lines 22-25). Thus Dodrill recognized the criticality of the pressure differential between the processing tank and the package. Lagerstedt recognized applicant's problem of maintaining the integrity of paperboard containers against moisture, during sterilization and preventing the moisture during sterilization from affecting the integrity of paperboard containers. Lagerstedt also teaches controlling the pressure and temperature of the autoclave (Column 2, Lines 30-44), thus providing further evidence of controlling the pressure and temperature of the sterilization vessel based on a predetermined pressure and temperature required in the vessel, to maintain the integrity of the paperboard package contained therein.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5472042, US 4816269 disclose controlling the temperature and pressure within a sterilization vessel for the purpose of controlling the pressure imparted to the container to be sterilized. US 4816269 further discloses comparing the pressure differential across two sterilizing containers to ensure that the walls of the containers, such as foil lined paper containers, are prevented from deflecting beyond a point at which they will rupture or become permanently deformed. The temperature and pressure are actively controlled. US 4874580 also discloses retort of paper type containers while preventing deformation by controlling the pressure differential during cooling. US 5217737 discloses preventing catastrophic failure of the container during pressurized sterilization.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viren Thakur whose telephone number is (571)-272-6694. The examiner can normally be reached on Monday through Friday from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Viren Thakur
Examiner
Art Unit: 1794

Steve Weinstein
STEVE WEINSTEIN 1794
PRIMARY EXAMINER
11/16/07